



Nunez Community College Master Syllabus

MATH 1300 College Algebra

Division:

Arts and Humanities

Last Revised:

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Contact Info.:

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Included only on the Master Syllabus

EVALUATION OF INSTRUCTION

Each class at the College is evaluated by the students during the semester. The instrument used allows students to comment on the instructor and his presentation of the course. The results of these evaluations are made available to the instructor after grades are complete and turned in to the Division.

The Dean of the Division or his designee visits classes to observe instructors and completes an evaluation. A copy is given to the instructor with the opportunity for the instructor to respond to the evaluation. The evaluation with the instructor's response is kept on file in the Dean's office.

Information Included (as a block) on the Individual Instructor's Syllabus as well

COURSE DESCRIPTION

Sets, algebra of numbers as a logical system, operations of real numbers, inequalities, absolute values, coordinate systems, linear and quadratic functions, binomial theorem, mathematical induction, polynomial, inverse, exponential, and logarithmic functions, complex numbers, conic sections and partial fractions. (Hours: 3-0-3) Prerequisite: a grade of "C" or higher in MATH 1180 or placement test.

REQUIRED MATERIALS

TEXT: College Algebra, 7th edition, Larson and Hostetler.
Scientific or graphing calculator.

STUDENT LEARNING OUTCOMES

Express relationships using the concept of a function and use verbal, numerical, graphical and symbolic means to analyze a function.

Model situations from a variety of settings by using polynomial, exponential and logarithmic

functions.

Manipulate mathematical information, concepts, and thoughts in verbal, numeric, graphical and symbolic form while solving a variety of problems which involve polynomial, exponential or logarithmic functions.

Apply a variety of problem-solving strategies, including verbal, algebraic, numerical, and graphical techniques, to solve multiple-step problems involving polynomial, exponential, logarithmic equations and inequalities and systems of linear equations.

Shift among the verbal, numeric, graphical and symbolic modes in order to analyze functions.

Use appropriate technology in the evaluation, analysis and syntheses of information in problem-solving situations.

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Students must complete all course work including a comprehensive final examination with an overall grade of “D” or higher.

CONTENT OUTLINE

- I. Equations and Inequalities
 - A. Linear equations
 - 1. Solutions for equations in one variable
 - 2. Graphs for equations in two variables
 - B. Quadratics equations
 - 1. Real solutions
 - 2. Complex solutions
 - 3. Equations reducible to quadratic
 - C. Linear inequalities
- II. Functions
 - A. Relations and Functions
 - B. Graphs of functions (vertical line test)
 - C. Translation of functions
 - D. Arithmetic of functions
 - E. Inverse functions
- III. Polynomial functions
 - A. Quadratic functions
 - B. Functions of degree higher than 2
 - 1. Polynomial and synthetic division
 - 2. Finding zeros of functions
- IV. Exponential and Logarithmic Functions
 - A. Exponential functions and their graphs
 - B. Definition of logarithms
 - C. Logarithmic functions and their graphs
 - D. Properties of logarithms
 - E. Exponential and logarithmic equations
- V. Systems of equations
 - A. Solving systems of equations

- B. Multivariable systems
- C. Linear programming

GRADING

Grades may be determined using several activities including but not limited to test, assignments, presentations, participation, and projects. There must be at least three grading activities during the semester. The 10% scale to determine letter grades is suggested, but a higher scale may be used by the instructor.

All students are required to take a comprehensive final examination. The final exam grade must be weighted so as to represent no less than 30% of the students overall grade.

The instructor must present in the class syllabus the specific criteria used to determine student's grades for the class.

[Curriculum-wide Policies]**ATTENDANCE**

Students should read the policy on attendance in the Nunez College Catalog. Roll will be checked each class and the instructor may drop a student for excessive unexcused absences prior to the official last day to drop a course. If the instructor drops a student from the roster before the last drop date, the student will receive a "W" grade. If absences occur and/or accumulate after the last day to officially withdraw, the student may fail the course. Excessive absences usually equal to two weeks of class time. Students who arrive late to class must see the instructor after the class to have that absence removed. Students who leave class early may be counted absent for that class.

CLASSROOM ETIQUETTE

No student may create disturbances to the learning environment. Students may be warned, asked to leave class and/or referred to the Vice-Chancellor for Student Affairs or designee for disciplinary action depending on the frequency or severity of the disturbance. Entering and leaving the classroom during class time is a distraction to other students and the instructor and should be avoided. A student's need to be in constant contact with the outside world through high-tech electronic devices (beepers, cell-phones, etc...) does not supersede basic classroom etiquette, and the beeping, buzzing or ringing of these devices are definitely considered a disturbance by the instructor. Only those persons enrolled in the class should be present in class.

PLAGIARISM AND CHEATING

Cheating/plagiarizing is a serious offense. Webster defines plagiarism as the act of "taking and using as one's own the ideas or writings of another." Depending on the frequency or severity of a student's cheating/plagiarizing the instructor may lower the student's grade or recommend the student to the Vice Chancellor for Academic Affairs for disciplinary action.

AMERICANS WITH DISABILITIES ACT

It is the policy of Nunez Community College to accommodate students with disabilities, pursuant to federal law, state law, and the school's commitment to equal educational opportunities. Any student with a disability who needs accommodations should contact Carly Gervais in the ADA Coordinator's Office. The office is located in the Law Library, Room 1-234, telephone 278-7491 or

e-mail cgervais@nunez.edu.

Information that may be included on the Individualized portion of the Individual Instructor's Syllabus (at the instructor's option)

SUGGESTED ACTIVITIES**SUPPLEMENTAL RESOURCES**

Laptop computer and projector for PowerPoint presentation may be arranged with Computer Services

Overhead projector and TI-83+ with LED viewscreen (C. Childress at cchildress@nunez.edu or office: 2-224)